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COMPARATIVE MARKETABILITY OF PINE AND MIXED SPECIES IN THE INLAND EMPIRE

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The lumber industry in the Inland Empire has been primarily a pine industry. Two-thirds of the lumber cut prior to the war was produced from white pine and ponderosa pine timber, although these two species represent only one-third of the sawtimber resource. The situation has changed somewhat during the past several years due to booming lumber markets which have increased the marketability of all timber. Even so, more than half of the regional lumber production between 1941 and 1946 was white pine and ponderosa pine.

Sawmills in some sections of the region have leaned more heavily on the pines than in others. Over the 20-year period, 1921-1940, three-quarters of the lumber output in Northern Idaho and Northeastern Washington was pine. In Western Montana, because of railroad tie and mine timber markets, a larger proportion of the sawmill cut has been of the so-called mixed species--Douglas-fir, larch, grand fir, hemlock, cedar, spruce, and lodgepole pine. Nevertheless, throughout the region the tendency of the lumber industry has been to cut the pines heavily and the mixed species lightly.

This emphasis on white pine and ponderosa pine is due, of course, to the fact that these are the two most valuable lumber species in the Inland Empire. Another factor, however, has been the relatively low marketability of mixed timber in years past. These species have, for the most part, been cut where the cost of roads and other developments has already been paid for by the pines. They have been cut in larger amounts by mills enjoying lower than the average costs--by mills with markets for railroad ties or mine timbers. In other words, the failure of the lumber industry to cut the mixed species in greater quantities has been a matter of necessity rather than of free choice. This is shown in figure 1 which compares marketability indexes of white pine and the secondary species. The index shown here for white pine is the margin between average lumber selling value and average production cost (not including stumpage cost). Figure 1 shows that for every year except one since 1916, the selling value of white pine lumber has been higher than the average production cost of white pine mills. In figure 1 also is the index of marketability of the mixed species in the white pine zone, during the same period.

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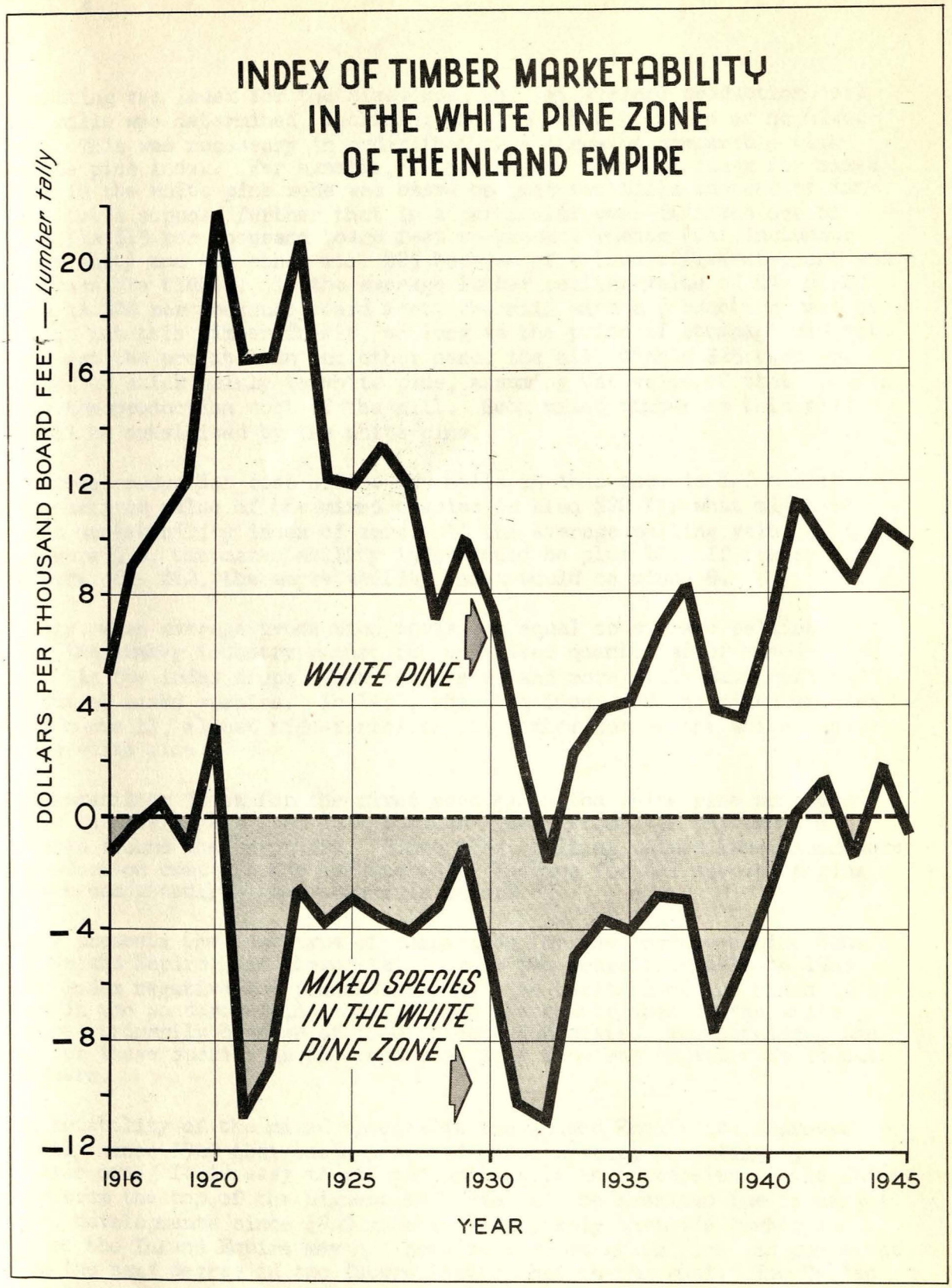
INDEX OF TIMBER MARKETABILITY
IN THE WHITE PINE ZONE
OF THE INLAND EMPIRE
DOLLARS PER THOUSAND BOARD FEET — Lumber tally
20
16
12
8
4
0
-4
-8
-12
WHITE PINE
MIXED SPECIES
IN THE WHITE
PINE ZONE
1916
1920
1925
1930
1935
1940
1945
YEAR

Figure 1

In computing the index for the mixed species, the average production cost of all mills was determined, including those which cut little or no mixed timber. This was necessary in order that this index be comparable with the white pine index. For example, let's suppose that the index for mixed species in the white pine zone was based on just two mills instead of many mills. Let's suppose further that in a particular year it costs one of these mills $15 per thousand board feet to produce lumber (not including stumpage cost) and the other mill $25 because of a less efficient plant and less accessible timber. If the average lumber selling value of the mixed species is $20 per thousand board feet, the mill with a production cost of $15 could cut this timber freely, so long as the price of stumpage did not squeeze out the profit. On the other hand, the mill with a $25 cost would be forced to stick mainly to white pine, assuming the value of that species exceeds the production cost of the mill. Such mixed timber as this mill cuts will be subsidized by the white pine.

The average production cost of the two mills in this case is $20 and the average selling value of the mixed species is also $20 for what might be called a marketability index of zero. If the average selling value of the lumber were $30, the marketability index would be plus 10. If the selling value were only $12, the marketability index would be minus 8.

Obviously, when average production costs are equal to average selling values, the lumber industry cannot cut unlimited quantities of mixed timber. As the index drops below zero, more and more mills must curtail their cut of mixed species. In 1932, when the index for the mixed species reached minus 11, almost nine-tenths of the lumber cut in the white pine zone was white pine.

The marketability index for the mixed species in the white pine zone was negative for every year from 1921 through 1940. From 1941 through 1945 it hovered around the zero mark. Since then, selling values have risen more than production costs so the marketability indexes for all species during 1947 were undoubtedly higher than ever before.

Figure 2 presents the same type of comparison for the ponderosa pine zone in the Inland Empire. It shows that in only two years from 1916 to 1945 was the index negative for ponderosa pine. The position of the mixed species in the ponderosa pine zone is somewhat better than in the white pine zone, primarily because of lower production costs. Nevertheless, the margin for these species in the ponderosa pine zone was negative in 15 out of 30 years.

The marketability of the mixed species in the Inland Empire has improved so greatly since 1940 that one may ask if these species have finally come into their own. It is easy to get too optimistic an impression of the future looking from the top of the highest inflation in the American lumber market. However, developments since 1940 make it seem likely that the lumber industry of the Inland Empire may not need to lean on white pine and ponderosa pine to the same degree in the future that it has in the past. The United

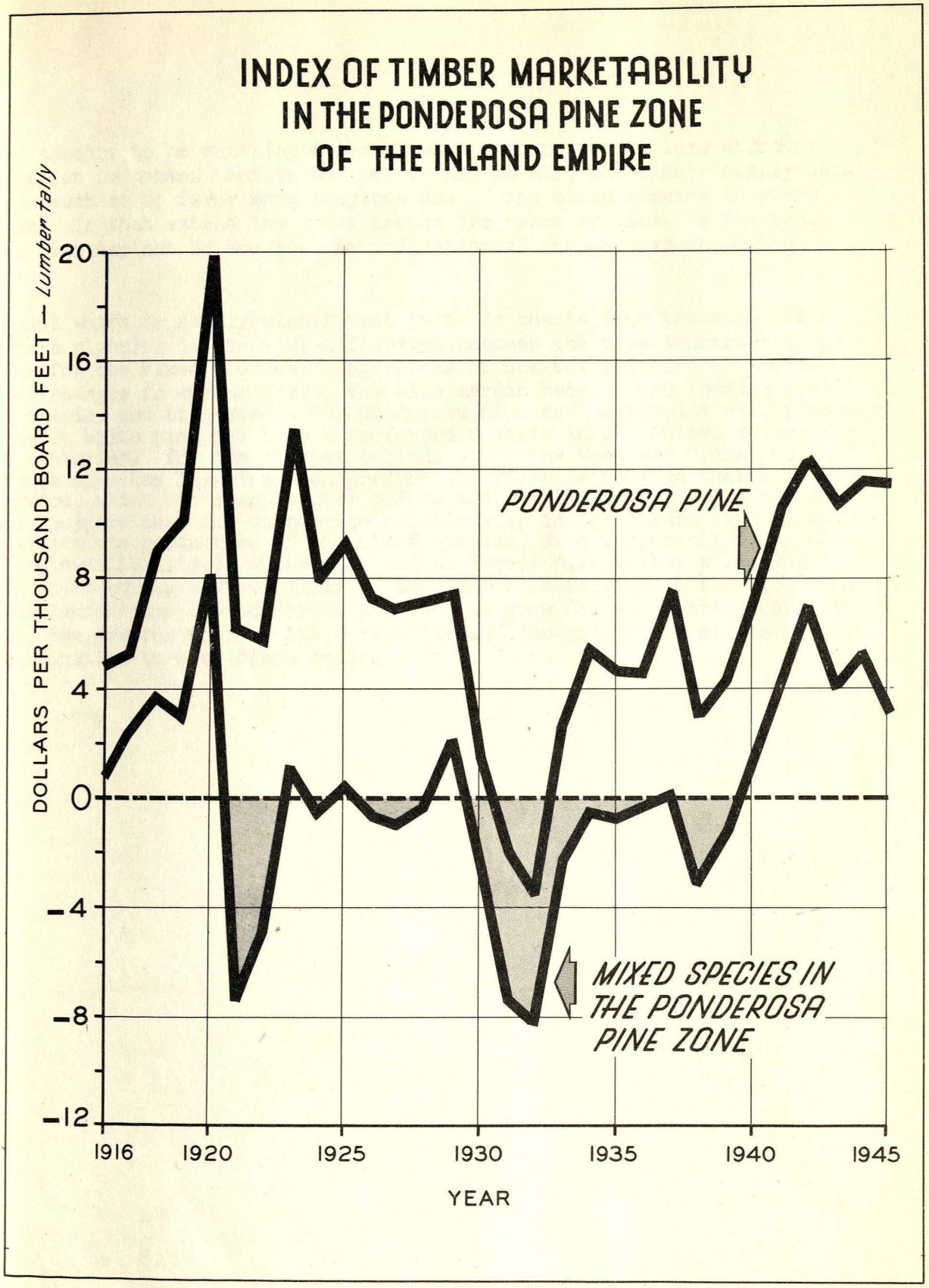
INDEX OF TIMBER MARKETABILITY
IN THE PONDEROSA PINE ZONE
OF THE INLAND EMPIRE
DOLLARS PER THOUSAND BOARD FEET — Lumber tally
20
16
12
8
4
0
-4
-8
-12
1916
1920
1925
1930
1935
1940
1945
YEAR
PONDEROSA PINE
MIXED SPECIES IN
THE PONDEROSA
PINE ZONE

Figure 2

States appears to be entering a period when timber will be less abundant in relation to demand than in the past. All in all, the timber supply outlook is such as to favor more complete use of the mixed species in years to come. To that extent the index trends for these species for the years before 1941 may not be too good an indication of what to expect in the future.

The point which is really significant in these charts from the standpoint of future planning is the wide difference between the pine indexes and the indexes for the mixed species. Regardless of how the position of the mixed species changes in coming years, the wide margin between the indexes for these species and the indexes for ponderosa pine and white pine will probably continue. White pine has been a preferred species in the United States for three centuries. For the shorter period, since the West was opened up, ponderosa pine has likewise been preferred. There is no sign that this preference, which has meant higher prices and higher profits, will not continue. Suppose that the cost-price relationship in the future is such as to restrict the production of the mixed species, even temporarily. In that case the availability of white pine and ponderosa pine timber will greatly add to the security and stability of the lumber industry. In the long run, the more white pine and ponderosa pine we can grow for the lumber industry to cut, the greater will be its prosperity and the prosperity of the lumber communities in the Inland Empire.